

How two companies justified their predictive maintenance programs

We asked Jim Burleson of International Minerals and Chemicals Corporation (IMC) and Gary Chabot of Corpus Christi Petrochemical Company (CCPC) how they recommended justifying a predictive maintenance program.

Their answers were similar: Focus on one or two areas of potential improvement that concern your management, and show the affect predictive maintenance can have on these problem areas.

Comparing repair costs

Burleson recommends focusing on major machine failures over a period of time that could be detected early using vibration analysis.

"Show what the costs have been to repair these machines, and estimate the repair costs if the malfunctions had been detected in their early stages," says Burleson, Maintenance and Engineering Manager for IMC's Florida phosphate mining operations.

Burleson gives as an example a particularly troublesome pump at IMC's mine in Bartow, Florida. "The pump failed month

after month. The repair expenditures for motors and reducers on the pump were tremendous," he says.

Using predictive maintenance techniques and Bently Nevada's Snapshot periodic monitoring system, the pump's problems were detected earlier and eventually the base of the pump was redesigned to reduce the vibration.

The initial cost of the Snapshot and the salary of the technician involved in the program has been offset two or three times by the savings achieved by correcting the problems on this one pump, according to Burleson.

"Go back and take a broad look at major machine failures," Burleson advises. "Look at the economics of predictive maintenance tied into vibration analysis. It's an excellent payback."

Reducing labor costs

Gary Chabot tied labor costs to predictive maintenance in justifying Corpus Christi Petrochemical Company's (CCPC) program.

Chabot, Senior Mechanical Engineer

for the Texas-based company, knew one of CCPC's goals was to control labor costs. He showed how a predictive maintenance program would enable the Mechanical Maintenance Group to perform more work with the same number of people.

"To control manpower costs, you have to automate your predictive maintenance program," Chabot says. CCPC uses computerized scheduling, accounting, and vibration analysis as part of its predictive maintenance program.

Chabot recognized that Bently Nevada's 7200 Series Data Manager on-line automated monitoring system would save CCPC time in reducing and trending vibration data from their compressor trains, crack gas units, and ethylene machines.

"In justifying the Data Manager and our predictive maintenance program, we said to management, 'This is what we're doing, and this is what we need to do. And it doesn't require extra manpower'," Chabot explains. ■



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Gary Chabot,
Corpus Christi Petrochemical Company